

2022 年度
大学院理工学研究科【環境共生工学専攻】博士前期課程
一般選抜試験(第 I 期)問題

英 語

開始時刻 午前 10 時 30 分

終了時刻 午前 11 時 30 分

【注意事項】

1. 答案用紙には受験番号、氏名を必ず記入してください。
2. 問題番号を明記された答案用紙を使用して解答してください。
3. 配布された答案用紙は試験が終了したら、必ず提出してください。
(問題用紙は提出しなくてよい)

問1：次の文章は、世界保健機関（WHO）の新型コロナウイルス感染患者を隔離から解放する基準に関する文書 ”Criteria for releasing COVID-19 patients from isolation” (17 June 2020, Scientific Brief) の一部である。これを読んで、下の問い（1）～（5）に答えなさい。（1）～（4）は日本語で答えること。

WHO’s first technical package of guidance for the clinical management of the novel coronavirus, now known as COVID-19, was published in early January 2020, shortly after a cluster of atypical pneumonia cases was first reported in Wuhan, People’s Republic of China, and included recommendations on when a patient with COVID-19 is no longer considered infectious.

The initial recommendation to confirm clearance of the virus, and thus allow discharge from isolation, required a patient to be clinically recovered and to have two negative RT-PCR results on sequential samples taken at least 24 hours apart. This recommendation was based on our knowledge and experience with similar coronaviruses, including those that cause SARS and MERS.

(中略)

Based on evidence showing the rarity of virus that can be cultured in respiratory samples after 9 days after symptom onset, especially in patients with mild disease, usually accompanied by rising levels of neutralizing antibodies and a resolution of symptoms, it appears safe to release patients from isolation based on clinical criteria that require a minimum time in isolation of 13 days, rather than strictly on repeated PCR results. It is important to note that the clinical criteria require that patients’ symptoms have been resolved for at least three days before release from isolation, with a minimum time in isolation of 13 days since symptom onset.

These modifications to the criteria for discharge from isolation (in a health facility or elsewhere) balance the understanding of infectious risk and the practicality of requiring repeated negative PCR testing, especially in settings of intense transmission or limited testing supplies. Although the risk of transmission after symptom resolution is likely to be minimal based on what is currently known, it cannot be completely ruled out. However, there is no zero-risk approach, and strict reliance on PCR confirmation of viral RNA clearance creates other risks (e.g. straining resources and limiting access to health care for new patients with acute disease).

Vocabulary: pneumonia, 急性肺炎； symptom, 症状

- (1) 下線部を日本語に訳しなさい。
- (2) WHO が最初に推奨した隔離から解放する基準は、いつ公表され、どのような内容であったか。
- (3) この文書では、症状がなくなってから最低何日間は隔離するべきであると述べているか。
- (4) このような修正をする理由についてどのように述べているか。
- (5) この文書中で `release` と同じ意味で使われている別の単語を英語で示しなさい。

問2：次の文章は、2015年の国連総会で採択されたある議案書から抜粋したものである。これを読んで下の問い（1）～（6）に答えなさい。

We are meeting at a time of immense challenges to sustainable development. Billions (A) our citizens continue to live in poverty and are denied a life of dignity*. There are rising (a)inequalities within and among countries. There are enormous disparities of opportunity, wealth and power. Gender inequality remains a key challenge. Unemployment, particularly youth unemployment, is a major concern. Global health threats, more frequent and intense natural disasters, spiralling conflict, violent extremism*, terrorism and related humanitarian* (b)crisis and forced displacement of people threaten to reverse much of the development progress made in recent decades. Natural resource depletion and adverse impacts of environmental degradation, (c)include desertification, drought, land degradation, freshwater scarcity and loss of biodiversity, add to and exacerbate* the list of challenges which humanity faces. Climate change is one of the (d)great challenges of our time and its adverse impacts undermine* the ability of all countries (B) achieve sustainable development. Increases in global temperature, sea level rise, ocean acidification and other climate change impacts are seriously affecting coastal areas and low-lying coastal countries, including many (e)little developed countries and small-island developing States. (F).

It is also, however, a time of immense opportunity. (G). Within the past generation, hundreds of millions of people have emerged* from extreme poverty. Access to education has greatly increased (C) both boys and girls. (h)The spread of information and communications technology has great potential to accelerate human progress, to bridge the digital divide and to develop knowledge societies, as (f)do scientific and technological innovation across areas as diverse (D) medicine and energy.

Almost 15 years ago, the Millennium Development Goals were agreed. (H) and significant progress has been (g)make in a number of areas. But (I), particularly in Africa, least developed countries, landlocked* developing countries and small-island developing States, and some of the Millennium Development Goals remain off-track, (E) particular those related to maternal, newborn and child health and to reproductive health.

*Vocabulary: dignity, 尊厳; extremism, 極端主義; humanitarian: 人道上の; exacerbate, 悪化させる; undermine: 低下させる; emerge: 抜け出す; landlocked: 内陸の

(1) 下線部 (a) の "inequalities" の例として文中で挙げられているものを3つ、日本語で答えなさい。

(2) 下線部 (b)~(g) の単語を、文中の場所に合わせて最も適切な形に変えなさい。

(3) 文中の空欄 (A)~(E) に最もよくあてはまる一語を、下の中から選んで答えなさい。同じ語を二ヶ所以上に用いてはいけない。

選択肢： as at for from in of on to

(4) 下線部 (h) を日本語に訳しなさい。

(5) 文中の大きな空欄 (F) ~ (I) に最もよく当てはまる一節を次の(1)~(4)から選んで記号で答えなさい。文頭に来る場合には先頭の文字は大文字になるものとする。

(1) the progress has been uneven

(2) these provided an important framework for development

(3) significant progress has been made in meeting many development challenges

(4) the survival of many societies, and of the biological support systems of the planet, is at risk

問3：以下の各文を英語に訳しなさい。ただし(4)の「注：」以下は訳さなくてよい。

(1) ほとんどの化学反応 (chemical reaction) は、温度が高くなるにつれて速くなることが知られている。

(2) しかし、酵素 (enzyme) が触媒 (catalyst) として作用する反応では、これは正しくない。

(3) 一般に、これらの反応は人間の体温付近でもっともよく進行する。

(4) これは、酵素が一般に球状のタンパク質であり、特有の立体的な構造をもっていることと関係している。

注：「立体的な構造」は「高次構造」で言い換えてもよい。

(5) これらの反応が円滑に進行するためには、この構造が極めて重要である。